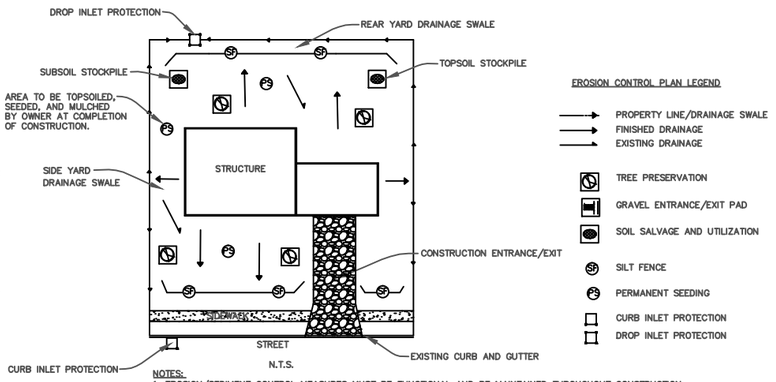
CONSTRUCTION SEQUENCE FOR BUILDING SITE EROSION CONTROL PRACTICE



EROSION CONTROL PLAN LEGEND

- PROPERTY LINE/DRAINAGE SWALE
- FINISHED DRAINAGE
- EXISTING DRAINAGE
- TREE PRESERVATION
- GRAVEL ENTRANCE/EXIT PAD
- SOIL SALVAGE AND UTILIZATION
- SILT FENCE
- PERMANENT SEEDING
- CURB INLET PROTECTION
- DROP INLET PROTECTION

NOTES:
1. EROSION/SEDIMENT CONTROL MEASURES MUST BE FUNCTIONAL AND BE MAINTAINED THROUGHOUT CONSTRUCTION.
2. MAINTAIN POSITIVE DRAINAGE AWAY FROM THE STRUCTURES(S).

SAMPLE EROSION/SEDIMENT CONTROL PRACTICE PLAN
TYPICAL STRUCTURE UNDER CONSTRUCTION

STEP 1. EVALUATE THE SITE
BEFORE CONSTRUCTION, EVALUATE THE ENTIRE SITE, MARKING FOR PROTECTION ANY IMPORTANT TREES AND ASSOCIATED ROOTING ZONES, UNIQUE AREAS TO BE PRESERVED, ON-SITE SEPTIC SYSTEM ABSORPTION FIELDS, AND VEGETATION SUITABLE FOR FILTER STRIPS, ESPECIALLY IN PERIMETER AREAS.

IDENTIFY VEGETATION TO BE SAVED
*SELECT AND IDENTIFY THE TREES, SHRUBS, AND OTHER VEGETATION THAT YOU WANT TO SAVE (SEE VEGETATIVE FILTER STRIPS UNDER STEP 2 BELOW).

PROTECT TREES AND SENSITIVE AREAS
*TO PREVENT ROOT DAMAGE, DO NOT GRADE, BURN, PLACE SOIL PILES, OR PARK VEHICLES NEAR TREES OR IN AREAS MARKED FOR PRESERVATION.

*PLACE PLASTIC MESH OR SNOW FENCE BARRIERS AROUND THE TREES DRIP LINE TO PROTECT THE AREA BELOW THEIR BRANCHES.

* PLACE A PHYSICAL BARRIER, SUCH AS PLASTIC FENCING, AROUND THE AREA DESIGNATED FOR A SEPTIC SYSTEM ABSORPTION FIELD (IF APPLICABLE).

STEP 2. INSTALL PERIMETER EROSION AND SEDIMENT CONTROLS
IDENTIFY THE AREAS WHERE SEDIMENT-LADEN RUNOFF COULD LEAVE THE CONSTRUCTION SITE, AND INSTALL PERIMETER CONTROLS TO MINIMIZE THE POTENTIAL FOR OFF-SITE SEDIMENTATION. IT'S IMPORTANT THAT PERIMETER CONTROLS ARE IN PLACE BEFORE ANY OTHER EARTH-MOVING ACTIVITIES BEGIN.

PROTECT DOWN-SLOPE AREAS WITH VEGETATIVE FILTER STRIPS
* ON SLOPES OF LESS THAN 6 PERCENT, PRESERVE A 20 TO 30 FOOT WIDE VEGETATIVE BUFFER STRIP AROUND THE PERIMETER OF THE PROPERTY AND USE IT AS A FILTER STRIP FOR TRAPPING SEDIMENT.

* DO NOT MOW FILTER STRIP VEGETATION SHORTER THAN 4 INCHES

WITH SILT FENCE
* USE SILT FENCING ALONG THE PERIMETER OF THE LOT'S DOWN SLOPE SIDE(S) TO TRAP SEDIMENT (SEE SILT FENCE DETAIL)

INSTALL GRAVEL DRIVE
* RESTRICT ALL LOT ACCESS TO THIS DRIVE TO PREVENT VEHICLES FROM TRACKING MUD ONTO ROADWAYS (SEE CONSTRUCTION ENTRANCE DETAIL)

PROTECT STORM SEWER INLETS
* PROTECT NEARBY STORM SEWER CURB INLETS WITH STONE-FILLED OR GRAVEL- FILLED GEOTEXTILE BAGS (SEE CURB INLET PROTECTION DETAIL) OR EQUIVALENT MEASURES BEFORE DISTURBING SOIL.

* PROTECT ON-SITE STORM SEWER DROP INLETS WITH SILT FENCE MATERIAL (SEE CURB INLET PROTECTION DETAIL), STRAW BALES, OR EQUIVALENT MEASURES BEFORE DISTURBING SOIL.

STEP 3. PREPARE THE SITE FOR CONSTRUCTION
PREPARE THE SITE FOR CONSTRUCTION AND FOR INSTALLATION OF UTILITIES. MAKE SURE ALL CONTRACTORS (ESPECIALLY THE EXCAVATING CONTRACTOR) ARE AWARE OF AREAS TO BE PROTECTED.

SALVAGE AND STOCKPILE TOPSOIL/SUBSOIL
* REMOVE TOPSOIL (TYPICALLY THE UPPER 4 TO 8 INCHES OF SOIL MATERIAL) AND STOCKPILE.

* REMOVE SUBSOIL AND STOCKPILE SEPARATELY FROM THE TOPSOIL.

* LOCATE THE STOCKPILES AWAY FROM ANY DOWN SLOPE STREET, DRIVEWAY, STREAM, LAKE WETLAND, DITCH, OR DRAINAGEWAY.

* IMMEDIATELY AFTER STOCKPILING TEMPORARY-SEED THE STOCKPILES WITH ANNUAL RYE OR WINTER WHEAT AND/OR PLACE SEDIMENT BARRIERS AROUND THE PERIMETER OF THE PILES

STEP 4. BUILD THE STRUCTURE(S) AND INSTALL THE UTILITIES
CONSTRUCT THE STRUCTURE AND INSTALL THE UTILITIES; ALSO INSTALL THE SEWAGE DISPOSAL SYSTEM AND DRILL THE WATER WELL (IF APPLICABLE); THEN CONSIDER THE FOLLOWING:

INSTALL DOWN SPOUT EXTENDERS
*ALTHOUGH NOT REQUIRED, DOWN SPOUT EXTENDERS ARE HIGHLY RECOMMENDED AS A MEANS OF PREVENTING LOT EROSION FROM ROOF RUNOFF.

* ADD THE EXTERNDERS AS SOON AS THE GUTTERS AND DOWN SPOUTS ARE INSTALLED (SEE TEMPORARY DOWN SPOUT EXTENDERS DETAIL)

* BE SURE THE EXTENDERS HAVE A STABLE OUTLET SUCH AS THE STREET, SIDEWALK, OR A WELL VEGETATED AREA

STEP 5. MAINTAIN THE CONTROL PRACTICES
MAINTAIN ALL EROSION AND SEDIMENT CONTROL PRACTICES UNTIL CONSTRUCTION IS COMPLETED AND THE LOT IS STABILIZED.

* INSPECT THE CONTROL PRACTICES A MINIMUM OF TWICE A WEEK AND AFTER EACH STORM EVENT, MAKING ANY NEEDED REPAIRS IMMEDIATELY.

* TOWARD THE END OF EACH WORKDAY SWEEP OR SCRAPE UP ANY SOIL TRACKED ONTO ROADWAYS. DO NOT FLUSH AREAS WITH WATER.

* BY THE END OF THE NEXT WORKDAY AFTER A STORM EVENT, CLEAN UP ANY SOIL WASHED OFF-SITE.

STEP 6. REVEGETATE THE BUILDING SITE
IMMEDIATELY AFTER ALL OUTSIDE CONSTRUCTION ACTIVITIES ARE COMPLETED, STABILIZE THE LOT WITH SOD, SEED, AND/OR MULCH.

REDISTRIBUTE THE STOCKPILED SUBSOIL AND TOPSOIL
* SPREAD THE STOCKPILED SUBSOIL TO ROUGH GRADE.

* SPREAD THE STOCKPILED TOPSOIL TO A DEPTH OF 4 TO 6 INCHES OVER ROUGH-GRADED AREAS.

* FERTILIZE AND LIME ACCORDING TO SOIL TEST RESULTS OR RECOMMENDATIONS OF A SEED SUPPLIER OR A PROFESSIONAL LANDSCAPING CONTRACTOR.

SEED OR SOD BARE AREAS
* CONTACT LOCAL SEED SUPPLIES OR PROFESSIONAL LANDSCAPING CONTRACTORS FOR RECOMMENDED SEEDING MIXTURES AND RATES.

* FOLLOW RECOMMENDATIONS OF A PROFESSIONAL LANDSCAPING CONTRACTOR FOR INSTALLATION OF SOD.

* WATER NEWLY SEEDED/SODDED AREAS EVERY DAY OR TWO TO KEEP THE SOIL MOIST. LESS WATERING IS NEEDED ONCE GRASS IS 2 INCHES TALL.

MULCH NEWLY SEEDED AREAS
* SPREAD STRAW MULCH ON NEWLY SEEDED AREAS, USING 1 ½ TO 2 BALES OF STRAW PER 1,000 SQUARE FEET.

* ON FLAT OR GENTLY SLOPING LAND, ANCHOR THE MULCH BY CRIMPING IT 2 TO 4 INCHES INTO THE SOIL. ON STEEP SLOPES, ANCHOR THE MULCH WITH NETTING OR TACKIFIERS. AN ALTERNATIVE TO ANCHORED MULCH WOULD BE THE USE OF EROSION CONTROL BLANKETS.

STEP 7. REMOVE REMAINING TEMPORARY CONTROL MEASURES
ONCE THE SOD AND/OR VEGETATION IS WELL ESTABLISHED, REMOVE ANY REMAINING TEMPORARY EROSION AND SEDIMENT CONTROL PRACTICES, SUCH AS:

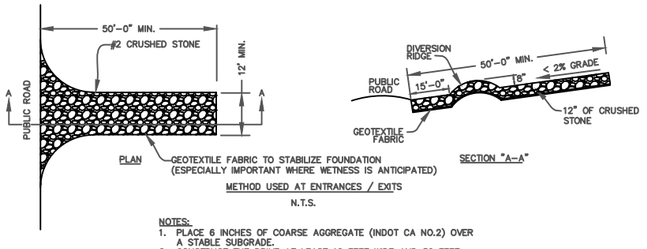
* DOWN SPOUTS EXTENDERS (OR SHORTEN TO OUTLET ONTO THE VEGETATED AREAS, ALLOWING FOR MAXIMUM INFILTRATION.

* STORM SEWER INLET PROTECTION MEASURES.

COMPILED FROM INFORMATION PREPARED BY THE DIVISION OF SOIL CONSERVATION, INDIANA DEPARTMENT OF NATURAL RESOURCES

EROSION CONTROL NOTES:

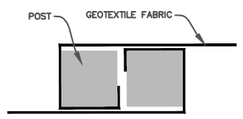
1. CONTRACTOR SHALL INSTALL ALL REQUIRED SILT FENCES, SILT TRAPS, TREE PROTECTION AND INLET PROTECTION FOR EXISTING INLETS PRIOR TO THE START OF ANY EARTH MOVING OR STRIPPING.
2. CONTRACTOR SHALL INSTALL A GRAVEL CONSTRUCTION ENTRANCE OR SOME OTHER DEVICE PRIOR TO THE START OF EARTHWORK AS NECESSARY TO PREVENT SOIL FROM BEING TRACKED OR WASHED INTO EXISTING ROADWAYS.
3. LAND ALTERATIONS WHICH STRIP THE LAND OF VEGETATION, INCLUDING REGRADING, SHALL BE DONE IN A WAY THAT WILL MINIMIZE EROSION. WHENEVER FEASIBLE, NATURAL VEGETATION SHALL BE RETAINED AND PROTECTED. AS GRADING IS DONE, INSTALL SILT TRAPS, SILT FENCES, SLOPE DRAINS, TEMPORARY DIVERSIONS AND OTHER RUNOFF CONTROL MEASURES AT APPROPRIATE LOCATIONS TO KEEP SEDIMENT CONTAINED ON SITE.
4. ALL DISTURBED AREAS SHALL BE SEEDED AND STRAW MULCHED AS SHOWN ON THE PLANS IMMEDIATELY AFTER COMPLETION OF GROUND DISTURBING ACTIVITY, FOR EACH PHASE AS THE DIFFERENT PHASES OF THE SITE ARE CONSTRUCTED.
5. PERMANENT AND FINAL VEGETATION OR STRUCTURAL EROSION CONTROL DEVICES SHALL BE INSTALLED AS SOON AS PRACTICAL.
6. THE DURATION OF TIME WHICH AN AREA REMAINS EXPOSED SHALL BE KEPT TO A PRACTICAL MINIMUM DEPENDING UPON THE WEATHER. IF CONSTRUCTION ACTIVITY IS TO CEASE FOR MORE THAN TWO WEEKS, THE DISTURBED AREAS SHALL BE TEMPORARILY SEEDED.
7. ALL STORM SEWER INLET PROTECTION DEVICES SHALL BE PUT IN PLACE AT THE TIME EACH INLET IS CONSTRUCTED.
8. CONTRACTOR SHALL MAINTAIN EROSION CONTROL MEASURES AND DEVICES DURING CONSTRUCTION AND UNTIL SILTATION OF THE STREETS AND STORM SEWERS WILL NO LONGER OCCUR.
9. ONCE ON-SITE EROSION AND SILTATION OF THE STREETS AND STORM SEWERS WILL NO LONGER OCCUR, THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THE TEMPORARY EROSION CONTROL DEVICES.
10. THESE GENERAL PROCEDURES MAY NOT COVER ALL SITUATIONS. REFER TO EROSION CONTROL PLANS FOR SPECIFIC NOTES AND ADDITIONAL DETAILS.
11. EROSION CONTROL SHALL COMPLY WITH INDIANA 327 IAC AND RULE #5, AND THE INDIANA STORM WATER QUALITY MANUAL.
12. THE CITY ENGINEER HAS THE AUTHORITY TO REQUEST ADDITIONAL EROSION CONTROL MEASURES OR AMEND EROSION CONTROL PLANS SUBJECT TO ACTUAL SITE CONDITIONS.
13. THE CONTRACTOR MAY SUBSTITUTE DIFFERENT EROSION CONTROL DEVICES FOR THOSE SHOWN ON THE DRAWINGS SO LONG AS THE SUBSTITUTED DEVICES PERFORMS AS REQUIRED BY INDIANA 327 IAC AND "RULE 5".
14. THE CONTRACTOR IS TO INSTALL, MONITOR AND MAINTAIN ALL REQUIRED EROSION CONTROL DEVICES IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE "INDIANA STORM WATER QUALITY MANUAL" LATEST EDITION, WHICH IS HEREBY INCORPORATED INTO THESE STANDARDS BY REFERENCE AND MADE A PART THEREOF.



METHOD USED AT ENTRANCES / EXITS
N.T.S.

NOTES:
1. PLACE 6 INCHES OF COARSE AGGREGATE (INDOT CA NO.2) OVER A STABLE SUBGRADE.
2. CONSTRUCT THE DRIVE AT LEAST 12 FEET WIDE AND 50 FEET LONG OR THE DISTANCE TO THE FOUNDATION.
3. ADD STONE AS NEEDED TO MAINTAIN 6 INCHES OF CLEAN DEPTH.
4. TO IMPROVE STABILITY OR IF WET CONDITIONS ARE ANTICIPATED, PLACE GEOTEXTILE FABRIC ON THE GRADED FOUNDATION.

CONSTRUCTION GRAVEL ENTRANCE



SILT FENCE JOINT DETAIL
PLAN VIEW
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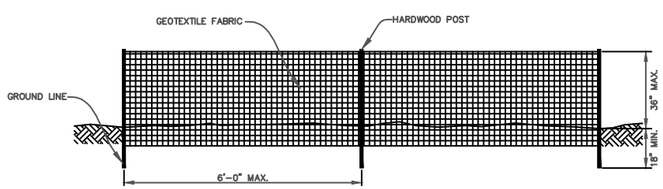

SILT FENCE ELEVATION
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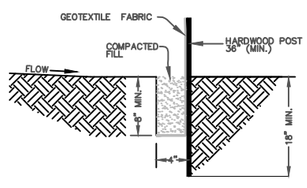

CROSS-SECTION OF SILT FENCE
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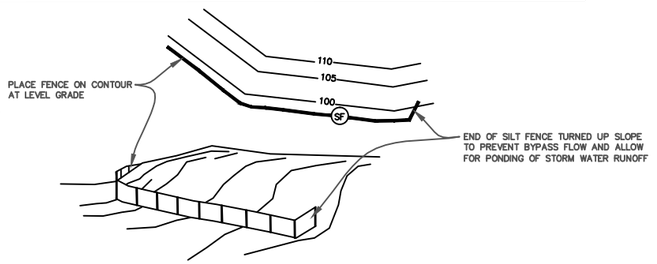

TYPICAL LAYOUT FOR SILT FENCE
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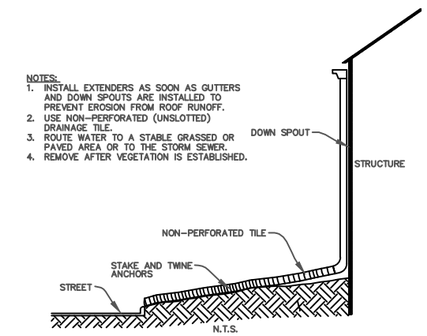
SILT FENCE



NOTES:
1. INSTALL EXTENDERS AS SOON AS GUTTERS AND DOWN SPOUTS ARE INSTALLED TO PREVENT EROSION FROM ROOF RUNOFF.
2. USE NON-PERFORATED (UNSLOTTED) DRAINAGE TILE.
3. ROUTE WATER TO A STABLE GRASSED OR PAVED AREA OR TO THE STORM SEWER.
4. REMOVE AFTER VEGETATION IS ESTABLISHED.

N.T.S.

TEMPORARY DOWN SPOUT EXTENDERS

CITY OF columbus

REVISIONS	DATE	BY

DWN BY: AJB
DATE: 12/23/2014
SCALE: N.T.S.

CITY OF COLUMBUS
OFFICE OF CITY ENGINEER
123 WASHINGTON STREET
COLUMBUS, INDIANA 47201

SHEET TITLE:
EROSION CONTROL
TYPICAL DETAILS AND NOTES

CERT.

SHEET: OF:
JOB No. DRG. No.
FILE: